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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Chun-Il Koh

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EXAMINER

EDWARDS, LYDIA E

ART UNIT

PAPER NUMBER

1797

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DELIVERY MODE

10/02/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/501,014	Applicant(s) KOH, CHUN-IL	
	Examiner LYDIA EDWARDS	Art Unit 1797	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 July 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 and 3-10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 and 3-10 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 4-6 are rejected under 35 U.S.C. 102(b) as being anticipated by Kim (EP 0860407).

Regarding Claims 4, 5 and 6, Kim ('407) discloses an organic waste decomposition device, comprising: a fermentation tank which includes an agitator capable of cutting an inputted organic waste (Col 10, lines 41-45; a cooling tank which is adapted to cool a carbonic acid gas including water which occurs in the fermentation tank (Col 5, line 23-Col 8, line 12), a gas-liquid separator which is adapted to separate water and a carbonic acid gas flown in through the outlet pipe and to discharge the water through a first drainage pipe formed in a lower portion, and in which the carbonic acid gas returns to the fermentation tank through the exhaust pipe formed in an upper portion (Col 5, line 23-Col 8, line 12); and a solid-liquid separator which is installed in the interior of the cooling tank an outlet (Col 5, line 23-Col 8, line 12).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person

having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 1 and 3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kim (EP 0860407) in view of Ginyama et al. (JP 2000233166).

Regarding Claim 1, Kim ('407) discloses an organic waste decomposition device, comprising: a plate shaped base arm (Col 3, lines 47-49 [42]); a cylindrical shell casing which is installed in the base frame and receive a microorganism therein (Figure 1 [10]); a shaft which is rotatably installed in a center portion of the shell casing (Col 2, lines 23-24; Col 3, lines 47-49; Col 8, lines 24-26); a plurality of arm blades which are engaged to the shaft and are adapted to agitate and crush the organic wastes (Col 2, lines 47-49; Col 4, line 47- Col 5, line 22; Col 10, lines 15-45), wherein each arm blade includes a plurality of inner arm blades which each has an inner arm plate having an end portion engaged to the shaft, and an inner end plate engaged to the other end portion of the inner arm plate and including a center portion bent, and which are installed at a regular interval with respect to an axial direction of the shaft; and an outer arm blade which includes an outer arm plate having an end engaged to the shaft, an outer end plate engaged to the other end portion of the outer arm plate and having a center portion bent, a sub-plate engaged to an upper portion of the outer arm plate at a certain slanted angle, and an outer arm plate. installed at both ends of the shaft; a driving motor which is adapted to provide a

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rotational force to the shaft (Col 8, lines 24-26); a condenser which is adapted to liquefy a vapor discharged when an organic waste is decomposed in the interior of the shell casing and to discharge the liquefied vapor (Col 6, lines 35-36); a steam pipe which is adapted to connect an upper portion of the shell casing and the condenser (Col 8, lines 12-36).

Kim does not explicitly state wherein a ring blower is used. However he does disclose an air intake [18] for continuously supplying.

Ginyama et al. ('166) teaches the use of a blower (Abstract) in a similar device; therefore it was known in the art at the time the invention was made to incorporate a blower to supply air into the interior shell casing to aid in the decomposition process. Ginyama et al. also discloses heat exchangers (Abstract) of which the examiner deems to be equivalent to a pre-heater. It would have also been obvious to one having ordinary skill in the art at the time the invention was made to provide a heating device adapted to heat the air being supplied to the tank to urge the decomposition of the organic waste.

Kim does not specifically state wherein a control box is used and adapted to control the operations of the driving motor. However he does mention several sensors that are used to control the process (Col 7, lines 40-58 and Col 14, lines 22-37). Therefore a control box is inherently taught by Kim. It would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate a control box to the drive motor, blower, and pre-heater as taught by Kim and Ginyama et al., since it has been held that broadly providing a mechanical or automatic means to replace manual activity which has accomplished the same result involves only routine skill in the art. *In re Venner*, 120 USPQ 192.

Regarding Claim 3, Kim ('407) discloses a cover which is adapted to protect the shell casing (Col 3, lines 43-44 and Figure 11 [12]).

Claims 7-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Christensen (US 2225428) in view of Kim (EP 0860407).

Regarding Claim 7, Christensen discloses a device for the recovery of unfermentable residue comprising: a hopper (Figure 1 [44 and 92]; Col 5, lines 53-67); screens (Figure 1[2 and 3] Col 4, line 52-Col 5, line 20) of which the examiner deems to be a functional equivalent to the twist screen; and eject hopper; a cyclone (Figure 1; Col 5, lines 43-75); and a blower [75, 76, 78] of which the examiner deems to be equivalent to a ring blower. Christensen does not explicitly state wherein a hopper which is connected with a fermentation tank of an organic waste decomposition device.

Furthermore, Christensen discloses all of the fore mentioned features but not in the exact order as the instant claim. However, it would have been obvious to one having ordinary skill in the art at the time the invention was made to order the various elements of the device as necessary to process the organic waste, since it has been held that rearranging parts of an invention involves only routine skill in the art. *In re Japikse*, 86 USPQ 70.

Kim discloses a fermentation tank of an organic waste decomposition device. The rejection above is relied upon. It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Christensen with a fermentation tank as taught by Kim that is connected to the hopper in order to provide a means for processing the organic waste.

Regarding Claim 8, Christensen discloses wherein said hopper includes an air supplier adapted to supply air for downwardly moving a remaining substance sucked in the hopper (Col 10, lines 45-61; Figure 1).

Regarding Claim 9, Christensen does not disclose wherein said hopper includes a filter bag.

However, it would have been obvious to one having ordinary skill in the art at the time the invention was made to include a filter bag to eliminate any contamination of the organic waste being processed.

Regarding Claim 10, Christensen discloses wherein said hopper includes a valve (Figure 1 [47]) of which the examiner deems to be a functional equivalent to a rotary valve

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to LYDIA EDWARDS whose telephone number is (571)270-3242. The examiner can normally be reached on Mon-Thur 6:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Walter Griffin can be reached on 571.272.1447. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/LYDIA EDWARDS/

Examiner

Art Unit 1797

LE

/Walter D. Griffin/
Supervisory Patent Examiner, Art Unit 1797